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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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21874	7590	05/06/2004		
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			EXAMINER WALSH, BRIAN D	
			ART UNIT 3722	PAPER NUMBER

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,749

Applicant(s)

HAUSCHILD ET AL.

Examiner

Brian D. Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18,20-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-18,20-28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The amendment filed 21 July 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: please see below (item #11).

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 12 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original and substitute specifications set forth elements related to a cutting blade *with a cutting edge* (Emphasis by Examiner). The amendment to the specification alters the scope of the invention in that the invention is now drawn to adding features (such as the wear resistant covering applied to the leading face) to a tool without cutting edges wherein the invention originally was described with elements added to a tool with cutting edges. The

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abstract is the sole basis for adding this feature and the original abstract submitted did not mention any wear-resistant coverings. Please see below for a further explanation (item #11).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11 – 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “cutter blade” in claims 11 - 30 is used by the claim to mean a tool without cutting edges, while the accepted meaning clearly involves a tool with cutting edges. The definition of a “cutter” is “a tool or machine for *cutting*.” (Emphasis by Examiner). The term is indefinite because the specification does not clearly redefine the term.

Applicant may have redefined the “blade edge” to be non-cutting edge, but Applicant has not redefined “cutter” to the extent that one reasonably skilled in the art would be on notice that this term has been completely redefined.

The Examiner has maintained these rejections since it is still unclear to what benefit or purpose an invention would provide a “cutter” without “cutting edges.” Certainly a “cutter

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blade,” to any ordinary artisan, is immediately assumed to be a “cutting device.” The removal of cutting edges on a cutter clouds the spirit of the invention and renders the claims unclear.

Definition: The New Merriam Webster Dictionary, Merriam-Webster, ©1989.

5. Claims 11 and 21 explicitly disclose a milling-type tool that includes a blade which is rotated and driven in a direction transverse to the axis of rotation that is known to perform a cutting action. Applicant’s assertion that the blade does not include cutting edges renders the claims indefinite and unclear since it is unclear how a “cutting blade” that clearly operates in a way known in the art somehow fails to possess cutting edges. Alone, the use of the element “cutting blade” with the limitation “without cutting edges” is unclear. The Examiner notes that the intended use of the tool (i.e. for machining “chipless” materials) is interpreted as intended use and is not a physical limitation of the tool. Furthermore, the Examiner has determined that this intended use does produce “chips” (in the broadest reasonable sense of the term) since the tool is used on a workpiece and produces scrap material.

The claims will be examined as best understood.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 11 – 15, 18, 21 – 25 and 28 are rejected, as best understood, as necessitated by amendment, under 35 U.S.C. 103(a) as being unpatentable over Williams.

Regarding claims 11, 12 and 18, Williams discloses a shank-end milling-type tool comprising a shank portion (1) having a longitudinal axis, a first end that can be detachably connected to a drive device and second end with a groove-shaped recess (2) extending in the longitudinal direction, a cutter blade (4, 4a, 4b, 19 and 27) in the groove and fixedly attached to the shank having a leading flat face in the direction of use wherein the blade made of steel and is provided with a wear resistant blade edge on the leading face (Col. 2, lines 43 – 53).

Williams discloses in figures 2, 2a, 3b, 4, 5, 6, 8 and 9 that the cutter blade is in the form of a flat bar.

Regarding claims 13 – 15, Williams discloses in figures 2a and 2b that the leading and trailing edges are rounded and cut-corner designs.

Regarding claims 21 – 25 and 28, Williams inherently teaches the method steps as set forth in the above rejections.

However, Williams fails to explicitly state the thickness of the blades used in the device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the thickness of the inserts to any size since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Furthermore, Applicant has provided no basis for why this particularly wide range of insert thickness (0.1 mm to 5.00 mm) is crucial to the workability of the device.

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7. Claims 16 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Schweikert et al.

Williams discloses all of the elements as set forth in the above rejections, however, Williams fails to disclose the cutter blade comprises a curved surface having a convex face, parallel to the longitudinal axis, pointing toward a direction of rotation during use.

Regarding claim 16, Schweikert et al. discloses a milling tool similar to the instant invention as well as Williams, comprising a shank-end tool with a cutter blade comprising a curved surface having a convex face, parallel to the longitudinal axis, pointing toward a direction of rotation during use (see figure 6).

Regarding claim 26, Schweikert et al. inherently discloses the method steps as set forth in the above rejection since Applicant has set forth no further limiting method steps or article limitations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the blade of Williams to include the curved surface of Schweikert et al. since Schweikert et al. teaches the use of this surface in order to overcome vibration and high wear problems (Col. 1, lines 29 – 31 and 36 – 38).

8. Claims 17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Ogawa.

Williams discloses all of the elements as set forth in the above rejections, however, Williams fails to disclose the cutter blade comprises surfaces that operate in a “fan-like” action.

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Regarding claim 17, Ogawa discloses a cutting tool similar to the instant invention wherein the blade includes a shovel-like arrangement with blades that are sloped with an angle relative to the longitudinal axis to produce a fan-like action.

Regarding claim 27, Ogawa inherently discloses the method steps as set forth in the above rejection since Applicant has set forth no further limiting method steps or article limitations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the blade of Williams to include the shovel-like blade of Ogawa since Ogawa discloses this arrangement on the blade in order to reduce cutting friction and prevent the blade edge from being burned (Col. 1, lines 34 – 67).

9. Claims 20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Freitag.

Williams discloses all of the elements as set forth in the above rejections, however, Williams fails to disclose the shank comprises a hollow cylindrical body at least at the second end.

Freitag discloses a cutter similar to the instant invention for cutting through a Styrofoam workpiece comprising a hollow cylindrical shank (40). See figure 3.

Regarding claim 30, Freitag inherently discloses the method steps as set forth in the above rejection since Applicant has set forth no further limiting method steps or article limitations.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the shank of Williams to include the hollow shank of Freitag since Freitag inherently teaches this void in order to experience a weight reduction of the device.

Response to Arguments

10. Applicant's arguments filed 21 July, 2003 have been fully considered but they are not persuasive.

11. With respect to Applicant's assertion that the original German Application provides a basis for elements pertaining to a non-cutting edge, blade edge of a cutter blade, such elements cannot be introduced into the U.S. Application after filing. See the following, stated in the MPEP: 2107 II-3-(ii):

2107 Guidelines for Examination of Applications for Compliance with the Utility Requirement

(ii) Provide evidence that one of ordinary skill in the art would have recognized that the identified specific and substantial utility was well- established at the time of filing. The examiner should review any subsequently submitted evidence of utility using the criteria outlined above. **The examiner should also ensure that there is an adequate nexus between the evidence and the properties of the now claimed subject matter as disclosed in the application as filed.** That is, the applicant has the burden to establish a probative relation between the submitted evidence and the originally disclosed properties of the claimed invention.

As well as: MPEP 2163.01, which reads:

2163.01 Support for the Claimed Subject Matter in Disclosure

A written description requirement issue generally involves the question of whether the subject matter of a claim is supported by [conforms to] the disclosure of an application as filed. If the examiner concludes that the claimed subject matter is not supported [described] in an application as filed, this would result in a rejection of the claim on the ground of a lack of written description under 35 U.S.C. 112, first paragraph or denial of the benefit of the filing date of a previously filed application. The claim should not be rejected or objected to on the ground of new matter. As framed by the court in *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981), the concept of new matter is properly employed as a basis for objection to amendments to the abstract, specification or drawings attempting to add new disclosure to that originally presented. While the test or analysis of description requirement and new matter issues is the same, the examining procedure and statutory basis for addressing these issues differ. See MPEP § 2163.06.

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Finally, MPEP 2163.06 states:

2163.06 Relationship of Written Description Requirement to New Matter

Lack of written description is an issue that generally arises with respect to the subject matter of a claim. If an applicant amends or attempts to amend the abstract, specification or drawings of an application, an issue of new matter will arise if the content of the amendment is not described in the application as filed. Stated another way, information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter. There are two statutory provisions that prohibit the introduction of new matter: 35 U.S.C. 132 - No amendment shall introduce new matter into the disclosure of the invention; and, similarly providing for a reissue application, 35 U.S.C. 251 - No new matter shall be introduced into the application for reissue.

Therefore, basis for the introduction of new matter into the specification and claims cannot be provided simply by illustrating that a priority document includes such elements.

The Examiner has considered Applicant's argument that for an edge to be considered a cutting edge, a "hook angle" or "relief angle" must exist. The Examiner has also considered Applicant's discussion involving Brewer (U.S. Pat. No. 4,205,799). Applicant attempts to convince the Office that Brewer discloses a cutting insert without cutting edges. First, the Examiner notes Brewer is largely non-analogous to the instant invention. The Examiner notes that Brewer explicitly states that each cutting bar has not only one, but *two* cutting edges (abstract). Also, Brewer indicates that *a cutting action is occurring with the cutter blades* (col. 4, lines 10 – 16) which inherently indicates that the cutter blades have *at least one cutting edge*. Due to these statements by Brewer, it is unclear to the Examiner how Brewer is relied upon by Applicant as teaching a cutting insert for a cutting operation that fails to show a cutting edge. The 112 rejections to the non-cutting edge cutter blade are maintained, further bolstered by Brewer.

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Applicant is reminded that method claims (21 – 30) set forth in the preamble only an “intended use” for the milling tool and does not refer back to this intended use inside the body of the claims. Please refer to MPEP 2111.02 [R-1] which reads (in part):

PREAMBLE STATEMENTS RECITING PUR-POSE OR INTENDED USE

The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use “can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” *Corning Glass Works*, 868 F.2d at 1257, 9 USPQ2d at 1966. **If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction.** *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) (“where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation”); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim); *STX LLC v. Brine*, 211 F.3d 588, 591, 54 USPQ2d 1347, 1350 (Fed. Cir. 2000) (holding that the preamble phrase “which provides improved playing and handling characteristics” in a claim drawn to a head for a lacrosse stick was not a claim limitation). >Compare *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1346-48, 64 USPQ2d 1202, 1204-05 (Fed. Cir. 2002). (Emphasis by Examiner).

According to the MPEP, the elements of the claims relating to a heat-resistant sand mold are not seen as limitation(s) in the claims.

The Examiner has considered Applicant’s remaining arguments, however the remaining arguments cover issues already discussed in the Final Action (09 October 2003).

Faxing of Responses to Office Actions

12. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to all Office Actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the Examiner

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and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 8:30 A.M. to 6:00 P.M., with every-other Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW

April 30, 2004



A. L. WELLINGTON
SUPERVISORY PATENT EXAMINER
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